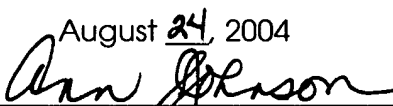


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Patent Docket P0894P1D2C6

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of Joffre Baker et al. Serial No.: 10/722,095 Filed: November 24, 2003	Group Art Unit: 1646 Examiner: To Be Assigned Confirmation No: 3998 CUSTOMER NO: 09157
For: CARDIAC HYPERTROPHY FACTOR AND USES THEREFOR	<p>CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on</p> <p>August <u>24</u>, 2004  Ann Johnson</p>

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants submit herewith patents, publications or other information (attached hereto and listed on the attached revised Form PTO-1449) of which they are aware, which they believe may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR §1.56.

This Information Disclosure Statement is filed in accordance with the provisions of:

- (x) **37 CFR §1.97(b)**
- within three months of the filing date of the application other than a continued prosecution application under 37 CFR §1.53(d); **or**
 - within three months of the date of entry of the national stage of a PCT application as set forth in 37 CFR §1.491, **or**
 - before the mailing of the first Office action on the merits; **or**
 - before the mailing of the first Office action after the filing of a request for a continued examination under 37 CFR §1.114.
- 0 **37 CFR §1.97(c)**
- by the applicant after the period specified in 37 CFR §1.97(b), but prior to the mailing date of any of a final action under 37 CFR §1.113, or a notice of

allowance under 37 CFR §1.311, or an action that otherwise closes prosecution in the application, and is accompanied by either the fee set forth in 37 CFR §1.17(p) or a statement as specified in 37 CFR §1.97(e), as checked below.

☐ **37 CFR §1.97(d)**

- after the period specified in CFR §1.97(c), and is accompanied by the fee set forth in 37 CFR §1.17(p) **and** a statement as specified in 37 CFR §1.97(e), as checked below.

(If either of boxes 37 CFR §1.97(c) or 37 CFR §1.97(d) is checked above, the following statement under 37 CFR §1.97(e) may need to be completed.)

- ☐ **37 CFR §1.97(e)** Each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement.
- ☐ **37 CFR §1.704(d)** Each item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application and the communication was not received by any individual designated in §1.56(c) more than thirty days prior to the filing of this information disclosure statement. Therefore, in accordance with the provisions of 37 CFR §1.704(d), the filing of this information disclosure statement will not be considered a failure to engage in reasonable efforts to conclude prosecution under 37 CFR §1.704.
- ☐ The U.S. Patent and Trademark Office is hereby authorized to charge Deposit Account No. 07-0630 in the amount of \$180.00 to cover the cost of this Information Disclosure Statement under 37 CFR §1.17(p). Any deficiency or overpayment should be charged or credited to this deposit account.

A list of the patent(s) and/or publication(s) is set forth on the attached revised Form PTO-1449 (Modified).

Those patent(s) or publication(s) which are marked with an asterisk (*) in the attached PTO-1449 form are not supplied because **a)** (X) they were previously cited by or submitted to the Office in a prior application Serial No. 09/896,856, filed 29 June 2001 and relied upon in this application for an earlier filing date under 35 USC §120 **and/ or** because **b)** ☐ this application was filed after June 30, 2003. Applicants are no longer required to submit copies of U.S. patents and U.S. patent application publications cited in information disclosure statements for all U.S. national patent applications filed after June 30, 2003 and for all international applications that have entered the national stage under

35 USC §371 after June 30, 2003 (**1276 OG 55**). Nevertheless, applicants stand ready to provide copies at the request of the Examiner.

A concise explanation of relevance of the items listed on PTO-1449 is:

- ☒ not given
- ☐ given for each listed item
- ☐ given for only non-English language listed item(s) (Required)
- ☐ in the form of an English language copy of a Search Report from a foreign patent office, issued in a counterpart application, which refers to the relevant portions of the references.

In accordance with 37 CFR §1.97(g), the filing of this information disclosure statement shall not be construed as a representation that a search has been made.

In accordance with 37 CFR §1.97(h), the filing of this information disclosure statement shall not be construed to be an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in 37 CFR § 1.56(b).

The Commissioner is hereby authorized to charge any additional fees required under 37 CFR 1.16 and 1.17 for this Information Disclosure Statement, or credit overpayment to Deposit Account No. 07-0630.

Respectfully submitted,

GENENTECH, INC.

Date: August 23, 2004

By:


Deirdre L. Conley, Ph.D.

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FORM PTO-1449

U.S. Dept. of Commerce
Patent and Trademark Office

Atty Docket No.

P0894P1D2C6

Serial No.

10/722,095

LIST OF DISCLOSURES CITED BY APPLICANT

(Use several sheets if necessary)

Applicant

Baker et al.

Filing Date

24 Nov 2003

Group

U.S. PATENT DOCUMENTS

Examiner Initials		Document Number	Date	Name	Class	Subclass	Filing Date
	* 1	4,339,441	13.07.82	Kalman et al.			
	* 2	4,900,811	13.02.90	Sutcliffe, J.			
	* 3	4,923,696	08.05.90	Appel et al.			
	* 4	5,017,375	21.05.91	Appel et al.			
	* 5	5,141,856	25.08.92	Collins et al.			
	* 6	5,166,317	24.11.92	Wallace et al.			
	* 7	5,202,428	13.04.93	Schubert			
	* 8	5,206,007	27.04.93	Ooshima et al.			
	* 9	5,210,026	11.05.93	Kovesdi et al.			
	*10	5,214,031	25.05.93	Uchida			
	*11	5,215,969	01.06.93	Springer et al.			
	*12	5,218,094	08.06.93	della Valle			
	*13	5,242,798	07.09.93	Sutcliffe			
	*14	5,250,414	05.10.93	Schwab et al.			
	*15	5,284,932	08.02.94	Sen			
	*16	5,534,615	09.07.96	Baker et al.			
	*17	5,571,893	05.11.96	Baker et al.			

FOREIGN PATENT DOCUMENTS

Examiner Initials		Document Number	Date	Country	Class	Subclass	Translation Yes No
	*18	233,838	26.08.87	EPO			
	*19	474,979	18.03.92	EPO			
	*20	476,933	25.03.92	EPO			
	*21	4,169,600A	17.06.92	JAPAN			
	*22	55-020721A	14.02.80	JAPAN			
	*23	WO 90/09399	23.08.90	PCT			
	*24	WO 92/11026	09.07.92	PCT			
	*25	WO 92/18140	29.10.92	PCT			
	*26	WO 92/20797	26.11.92	PCT			
	*27	WO 92/22665	23.12.92	PCT			
	*28	WO 93/03758	04.03.93	PCT			
	*29	WO 93/06116	01.04.93	PCT			
	*30	WO 93/07270	15.04.93	PCT			
	*31	WO 93/18065	16.09.93	PCT			
	*32	WO 93/23556	25.11.93	PCT			
	*33	WO 93/24529	09.12.93	PCT			

Examiner

Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449		U.S. Dept. of Commerce Patent and Trademark Office		Atty Docket No. P0894P1D2C6	Serial No. 10/722,095		
LIST OF DISCLOSURES CITED BY APPLICANT (Use several sheets if necessary)				Applicant Baker et al.			
				Filing Date 24 Nov 2003	Group		
FOREIGN PATENT DOCUMENTS							
Examiner Initials		Document Number	Date	Country	Class	Subclass	Translation Yes No
	*34	WO 94/05788	17.03.94	PCT			
OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, etc.)							
	*35	Barinaga, M., "Neurotrophic Factors Enter the Clinic [News]." <u>Science</u> . 264:772-774 (1994)					
	*36	Bazan, J.F., "Neuropoietic Cytokines in the Hematopoietic Fold" <u>Neuron</u> 7:197-208 (Aug 1991)					
	*37	Boheler et al., "Gene Expression in Cardiac Hypertrophy" <u>TCM</u> 2(5):176-182 (1992)					
	*38	Casali et al. <u>Science</u> 234:476-479 (1986)					
	*39	Chen et al., "Pharmacological Characterization of the Activity of Endogenous Inotropic Factor from Porcine Left Ventricle" <u>J. Cardiovas. Pharmacol.</u> 22(Suppl. 2):S93-S95 (1993)					
	*40	Chien et al., "Regulation of Cardiac Gene Expression During Myocardial Growth and Hypertrophy: Molecular Studies of an Adaptive Physiologic Response" <u>FASEB Journal</u> 5:3037-3046 (1991)					
	*41	Chien et al., "Transcriptional Regulation During Cardiac Growth and Development" <u>Annu. Rev. Physiol.</u> 55:77-95 (1993)					
	*42	Chien, K.R., "Molecular Advances in Cardiovascular Biology" <u>Science</u> 260(5110):916-917 (May 14, 1993)					
	*43	Davis et al., "The Molecular Biology of the CNTF Receptor" <u>Current Opinion in Cell Biology</u> 5:281-285 (1993)					
	*44	Fanger et al., "Bispecific Antibodies" <u>Critical Reviews in Immunology</u> 12(3,4):101-124 (1992)					
	*45	Frelin, "Serum Growth Factors for Rat Cardiac Non-Muscle Cells in Culture" <u>J. Molec. and Cell. Cardiol.</u> 12:1329-1340 (1980)					
	*46	Grimm et al., "Ventricular Nucleic Acid and Protein Levels with Myocardial Growth and Hypertrophy" <u>Circ. Res.</u> XIX:552-558 (1966)					
	*47	Iwaki et al., "α- and β-Adrenergic Stimulation Induces Distinct Patterns of Immediate Early Gene Expression in Neonatal Rat Myocardial Cells" <u>Journal of Biological Chemistry</u> 265(23):13809-13817 (Aug 15, 1990)					
	*48	Jackowski, A., "Neural injury repair: hope for the future as barriers to effective CNS regeneration become clearer" <u>British Journal of Neurosurgery</u> 9:303-317 (1995)					
	*49	Jones et al., "Association Between Inhibition of Arachidonic Acid Release and Prevention of Calcium Loading During ATP Depletion in Cultured Rat Cardiac Myocytes" <u>American Journal of Pathology</u> 135(3):541-556 (1989)					
	*50	Kanda et al., "An Interleukin-6 Secreting Myxoma in a Hypertrophic Left Ventricle" <u>Chest</u> 105(3):962-963 (1994)					
	*51	Karasik et al., "Growth Factors Identified in Myocardium of Patients with Hypertrophic Cardiomyopathy" <u>JACC</u> (abstract) 13(2):118A (1989)					
	*52	Kim et al., "Detection of Human Leukemia Inhibitory Factor by Monoclonal Antibody Based ELISA" <u>Journal of Immunological Methods</u> 156:9-17 (1992)					
Examiner					Date Considered		
*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

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				Filing Date 24 Nov 2003	Group
OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, etc.)					
	*53	Kishimoto et al., "Cytokine Signal Transduction" <u>Cell</u> 76:253-262 (Jan 28, 1994)			
	*54	Kitamura et al., "Multimeric Cytokine Receptors" <u>Trends Endocrinol. Metabol.</u> 5(1):8-14 (1994)			
	*55	Knowlton et al., "Co-Regulation of the Atrial Natriuretic Factor and Cardiac Myosin Light Chain-2 Genes During α -Adrenergic Stimulation of Neonatal Rat Ventricular Cells" <u>Journal of Biological Chemistry</u> 266(12):7759-7768 (April 25, 1991)			
	*56	Knowlton et al., "The α_{1A} -Adrenergic Receptor Subtype Mediates Biochemical, Molecular, and Morphologic Features of Cultured Myocardial Cell Hypertrophy" <u>Journal of Biological Chemistry</u> 268(21):15374-15380 (Jul 25, 1993)			
	*57	Lee et al., "Atrial Natriuretic Factor Gene Expression in Ventricles of Rats with Spontaneous Biventricular Hypertrophy" <u>J. Clin. Invest.</u> 81:431-434 (1988)			
	*58	Lee et al., " α_1 -Adrenergic Stimulation of Cardiac Gene Transcription in Neonatal Rat Myocardial Cells" <u>Journal of Biological Chemistry</u> 263(15):7352-7358 (1988)			
	*59	Libby, P., "Long-Term Culture of Contractile Mammalian Heart Cells in a Defined Serum-Free Medium that Limits Non-Muscle Cell Proliferation" <u>Journal of Molecular and Cellular Cardiology</u> 16:803-811 (1984)			
	*60	Long et al., "A Growth Factor for Cardiac Myocytes is Produced by Cardiac Nonmyocytes" <u>Cell Regulation</u> 2:1081-1095 (Dec 1991)			
	*61	Long et al., "Trophic Factors in Cardiac Myocytes" <u>J. Hyper.</u> 8(Suppl. 7):S219-S224 (1990)			
	*62	Long et al., " β -Adrenergic Stimulation of Cardiac Non-myocytes Augments the Growth-promoting Activity of Non-myocyte Conditioned Medium" <u>J. Mol. Cell. Cardiol.</u> 25:915-925 (1993)			
	*63	Long, "TGF β Isoform Expression and Effect in Neonatal Rat Cardiac Myocytes and Non-myocytes in Culture" <u>Circulation</u> (Abstracts from the 65th Scientific Sessions) 86:I-837 (1992)			
	*64	McCormick et al., "Myofibrillar and Nonmyofibrillar Myocardial Proteins of Copper Deficient Rats" <u>J. Nutr.</u> (Minerals and Trade Elements) 119:1683-1690 (1989)			
	*65	McDonald et al., "Expression and Characterization of Recombinant Human Ciliary Neurotrophic Factor from <i>Escherichia coli</i> " <u>Biochimica et Biophysica Acta</u> 1090:70-80 (1991)			
	*66	Miller-Hance et al., "In Vitro Chamber Specification During Embryonic Stem Cell Cardiogenesis. Expression of the ventricular myosin light chain-2 gene is independent of heart tube formation" <u>The Journal of Biological Chemistry</u> 268(33):25244-25252 (Nov 25, 1993)			
	*67	Mir et al., "Isolation of a Negative Inotropic Factor from Blast Cells of Patients with Leukaemic Cardiomyopathy" <u>Circulation</u> (abstract 324) 55 & 56(Suppl. III):III-86 (1977)			
	*68	Mir, "Evidence for Non-Infiltrative Neoplastic Cardiomyopathy and Presence of Negative Inotropic Factor in Acute Myeloid Leukaemia: A Clinico-Experimental Study" <u>British Heart J.</u> 39(3):355 (1977)			
	*69	Mukherjee et al., "Effect of Myotrophin on Induction of Proto-Oncogenes, ANF and Contractile Element Transcript Levels" <u>Circulation</u> 86(4 (Suppl. I)):I-626 (1992)			
	*70	Mukherjee et al., "Myotrophin Induces Early Response Genes and Enhances Cardiac Gene Expression" <u>Hypertension</u> 21(2):142-148 (1993)			
	*71	Neben et al., "The Biology of Interleukin 11" <u>Stem Cells</u> 11(Suppl. 2):156-162 (1993)			
	*72	Orkin et al., "Report and Recommendations of the Panel to Assess the NIH Investment in Research on Gene Therapy" <u>NIH</u> , Bethesda, MD pps. 1-41 (1995)			
Examiner				Date Considered	
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				Filing Date 24 Nov 2003	Group
OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, etc.)					
*73	Patterson, "The Emerging Neuropoietic Cytokine Family: First CDF/LIF, CNTF and IL-6; next ONC, MGF, GCSF?" <u>Curr. Opin. Neurobiol.</u> 2:94-97 (1992)				
*74	Pennica et al., "Expression cloning of cardiotrophin 1, a cytokine that induces cardiac myocyte hypertrophy" <u>Proc. Natl. Acad. Sci. USA</u> 92:1142-1146 (1995)				
*75	Ramaciotti et al., "Cardiac Endothelial Cells Modulate Contractility of Rat Heart in Response to Oxygen Tension and Coronary Flow" <u>Circ. Res.</u> 72(5):1044-1064 (1993)				
*76	Robbins et al., "Mouse Embryonic Stem Cells Express the Cardiac Myosin Heavy Chain Genes During Development in Vitro" <u>Journal of Biological Chemistry</u> 265(20):11905-11909 (1990)				
*77	Rockman et al., "Segregation of Atrial-Specific and Inducible Expression of an Atrial Natriuretic Factor Transgene in an in vivo Murine Model of Cardiac Hypertrophy" <u>Proc. Natl. Acad. Sci. USA</u> 88:8277-8281 (Sep 1991)				
*78	Rudinger, J., "Characteristics of the Amino Acids as Components of a Peptide Hormone Sequence" <u>Peptide Hormones</u> , J.A. Parsons, Baltimore:University Park Press pps. 6 (1976)				
*79	Sadoshima et al., "Autocrine Release of Angiotensin II Mediates Stretch-Induced Hypertrophy of Cardiac Myocytes in Vitro" <u>Cell</u> 75:977-984 (1993)				
*80	Sarzani et al., "Regulation of Cardiac Growth Factors and Growth Factor Receptors Gene Expression by Growth Hormone" <u>European Heart Journal</u> (abst. suppl.) 13:326 (1992)				
*81	Sen et al., "Basic Science/Circulation: Myocardial Structure and Pathology-Hypertrophy" <u>Circulation</u> 80(4 (Suppl. II)):II-616 (1989)				
*82	Sen et al., "Myotrophin: Purification of a Novel Peptide from Spontaneously Hypertensive Rat Heart That Influences Myocardial Growth" <u>Journal of Biological Chemistry</u> 265(27):16635-16643 (1990)				
*83	Shubeita et al., "Endothelin Induction of Inositol Phospholipid Hydrolysis, Sarcomere Assembly, and Cardiac Gene Expression in Ventricular Myocytes. A paracrine mechanism for myocardial cell hypertrophy" <u>Journal of Biological Chemistry</u> 265(33):20555-20562 (Nov 25, 1990)				
*84	Sil et al., "Myotrophin in Human Cardiomyopathic Heart" <u>Circ. Res.</u> 73(1):98-108 (1993)				
*85	Sil et al., "Purification of Myotrophin from Human Cardiomyopathic Heart" <u>FASEB J.</u> 5(5991):A1244 (1991)				
*86	Sil et al., "Role of Myotrophic in Pathophysiology of Cardiac Hypertrophy in Spontaneously Hypertensive Rat (SHR)" <u>Circulation</u> 88(4, part 2):I-613 (1993)				
*87	Simpson et al., "Differentiation of Rat Myocytes in Single Cell Cultures with and without Proliferating Nonmyocardial Cells. Cross-striations, ultrastructure, and chronotropic response to isoproterenol" <u>Circulation Research</u> 50(1):101-116 (Jan 1982)				
*88	Simpson et al., "Myocyte Hypertrophy in Neonatal Rat Heart Cultures and Its Regulation by Serum and by Catecholamines" <u>Circulation Research</u> 51(6):787-801 (Dec 1982)				
*89	Suzuki et al., "Serum-Free, Chemically Defined Medium is Important to Investigate the Growth, Development and Function of Neonatal Rat Cardiac Myocytes in Culture" <u>Trends in Animal Cell Culture Technology</u> , Murakami (ed.), Tokyo:Kodansha pps. 61-66 (1990)				
*90	Takemura et al., "Expression and Distribution of Atrial Natriuretic Peptide in Human Hypertrophic Ventricle of Hypertensive Hearts and Hearts with Hypertrophic Cardiomyopathy" <u>Circulation</u> 83(1):181-190 (1991)				
*91	Tomida et al., "Preparation and Neutralization Characteristics of an Antibody to the Factor Inducing Differentiation of Mouse Myeloid Leukemic Cells" <u>FEBS Letts</u> 151(2):281-285 (1983)				
*92	Williams et al., "Cardiovascular Growth Factors" <u>The Heart and Cardiovascular System</u> , Fozzard et al. (eds.), New York:Raven Press, Chapter 72, pps. 1 (1986)				
Examiner				Date Considered	
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